IN THE CLAIMS:

All of the pending claims 1-4, 8-12, 18, and 20-26 are set forth below. The status of each claim is indicated with one of (original), (previously presented), (cancelled), or (currently amended). Please AMEND claims 1, 8, 22, and 25 in accordance with the following:

1. (currently amended) A solid-state imaging element, comprising:

a plurality of light-receiving sensors converting optical signals to electrical signals, the plurality of light-receiving sensors arranged in v x h (vertical x horizontal) matrix; and

a memory storing the electrical signals as optical image data, said memory being formed of a plurality of line buffers, and the number of the plurality of line buffers arranged in the vertical direction is a value which is more than 1 and less than v.

2. (original) The solid-state imaging element of claim 1, further comprising:

a first switch circuit connecting one of the line buffers and said light-receiving sensors.

3. (original) The solid-state imaging element of claim 2, wherein the data in the line buffers are output in parallel.

4. (previously presented) The solid-state imaging element of claim 1, further comprising:

a first switch circuit selecting one of the line buffers to output the electrical signal.

5-7. (cancelled)

8. (currently amended) An image processor, comprising:

a solid-state imaging element comprising a plurality of light receiving sensors to convert optical signals to electrical signals, the plurality of light-receiving sensors arranged in v x h (vertical x horizontal) matrix;

an encoder encoding the electrical signals in units of n x m pixels; and

an electrical signal holder within said solid-state imaging element comprising line buffers, wherein the number of the plurality of line buffers arranged in the vertical direction is a value which is more than 1 and less than v ~~the light receiving sensors arranged in the vertical direction~~.

9. (original) The image processor of claim 8, further comprising:

a first switch circuit connecting one of the line buffers and the light receiving sensors.

10. (original) The image processor of claim 9, wherein data in the line buffers are output in parallel.

11. (previously presented) The image processor of claim 8, further comprising:

a first switch circuit selecting one of the line buffers and outputting an electrical signal thereto.

12. (original) The image processor of claim 8, wherein said encoder is a JPEG encoder.

13-17. (cancelled)

18. (previously presented) A charge-coupled device (CCD), comprising:

a vertical CCD having a plurality of photosensors arranged in v vertical lines and n horizontal lines corresponding to an n x v frame of pixels, and converting optical signals to electrical signal image data, the plurality of photosensors arranged in v x h (vertical x horizontal) matrix;

a horizontal CCD having n line buffers, each buffer holding up to v pixels of image data, and the number of the plurality of line buffers arranged in the vertical direction is less than the number of photosensors arranged in the vertical direction;

a first switch circuit connected to each of the vertical lines and the line buffers;

a first switch control circuit controlling said first switch circuit so that each line buffer sequentially connects to said vertical CCD, the image data in sequential ones of the n horizontal lines of said vertical CCD being transferred to a corresponding one of the n line buffers;

a second switch circuit connected to the line buffers and an external circuit; and

a second switch control circuit controlling said second switch circuit so that each line buffer sequentially connects to the external circuit, the image data in the line buffers being transferred to the external circuit in blocks of n x m ($m < v$) pixels, each line buffer in each block transferring m pixels.

19. (cancelled)

20. (previously presented) A charge-coupled device (CCD), comprising:

a vertical CCD having a plurality of photosensors arranged in v vertical lines and n horizontal lines corresponding to an n x v frame of pixels, and converting optical signals to electrical signal image data, the plurality of photosensors arranged in v x h (vertical x horizontal) matrix;

a horizontal CCD having n line buffers, each buffer holding up to v pixels of image data, and the number of the plurality of line buffers arranged in the vertical direction is less than the number of photosensors arranged in the vertical direction;

a switch circuit connected to each of the vertical lines and the line buffers; and

a switch control circuit controlling said switch circuit so that each line buffer sequentially connects to said vertical CCD, the image data in sequential ones of the n horizontal lines of said vertical CCD being transferred to a corresponding one of the n line buffers, and the image data in the n line buffers being output in parallel to the external circuit.

21. (previously presented) A charge-coupled device (CCD), comprising:

an array of photosensors arranged in v vertical lines and n horizontal lines corresponding to an n x v pixel array of image data, the array of photosensors arranged in v x h (vertical x horizontal) matrix; and

a plurality of n line buffers, each line buffer holding up to v pixels of image data, and the number of the plurality of line buffers arranged in the vertical direction is less than the number of photosensors arranged in the vertical direction,

wherein each line buffer sequentially connecting to said array, the image data in sequential ones of the n horizontal lines of said array being transferred to a corresponding one of the n line buffers, and each line buffer sequentially outputting the image data, the image data in the line buffers being output in blocks of n x m ($m < v$) pixels, each line buffer in each block outputting m pixels.

22. (currently amended) A charge-coupled device (CCD), comprising:

an array of photosensors arranged in v vertical lines and horizontal lines corresponding to an n x v pixel array of image data, each horizontal line being divided into k line sections, each line section corresponding to m ($m < k$) pixels of image data, and the array of photosensors arranged in v x h (vertical x horizontal) matrix; and

a plurality of k line buffers, each line buffer holding up to m pixels of image data, and the

number of the plurality of line buffers arranged in the vertical direction is a value which is more than 1 and less than v ~~the number of photosensors arranged in the vertical direction~~,

wherein blocks of n x m pixels of image data are transferred from the array of photosensors to the line buffers, such that a first one of the buffers receives m pixels from a horizontal line and outputs the m pixels before receiving another m pixels from the next horizontal line and so forth until a first block of n x m pixels has been transferred and output, and repeating the transfer and output operations for each remaining line buffer and the remaining image data.

23. (previously presented) A charge-coupled device (CCD), comprising:

an array of photosensors arranged in v vertical lines and n horizontal lines corresponding to an n x v pixel array of image data, and the array of photosensors arranged in v x h (vertical x horizontal) matrix; and

a plurality of n line buffers, each line buffer holding up to v pixels of image data, and the number of the plurality of line buffers arranged in the vertical direction is less than the number of photosensors arranged in the vertical direction,

wherein each line buffer sequentially connecting to said array, the image data in sequential ones of the n horizontal lines of said array being transferred to a corresponding one of the n line buffers, the image data in the n line buffers being output in parallel.

24. (previously presented) A method of outputting image data from a charge-coupled device (CCD), comprising:

arranging a plurality of photosensors in v vertical lines and n horizontal lines corresponding to an n x v pixel array of image data, the plurality of photosensors arranged in v x h (vertical x horizontal) matrix;

connecting, sequentially, each one of a plurality of n line buffers to the array of photo sensors, each line buffer holding up to v pixels of image data, and transferring the image data in sequential ones of the n horizontal lines of the array to a corresponding one of the n line buffers, the number of the plurality of line buffers arranged in the vertical direction is less than the number of photosensors arranged in the vertical direction; and

outputting, sequentially, the image data of each line buffer, the image data in the line buffers being output in blocks of n x m ($m < v$) pixels, each line buffer in each block outputting m pixels.

25. (currently amended) A method of outputting image data from a charge-coupled device (CCD), comprising:

arranging a plurality of photosensors in v vertical lines and n horizontal lines corresponding to an n x v pixel array of image data;

dividing each horizontal line into k line sections, each line section corresponding to m (m < k) pixels of image data;

transferring blocks of n x m pixels of image data from the array of photosensors to a plurality of k line buffers, each line buffer holding up to m pixels of image data, such that a first one of the buffers receives m pixels from a horizontal line and outputs the m pixels before receiving another m pixels from the next horizontal line and so forth until a first block of n x m pixels has been transferred and output, and repeating the transfer and output operations for each remaining line buffer and the remaining image data,

wherein the plurality of line buffers is arranged in a vertical direction and is a value which is more than 1 and less than v ~~the number of the photosensors arranged in the vertical direction~~.

26. (previously presented) A method of outputting image data from a charge-coupled device (CCD), comprising:

arranging a plurality of photosensors in v vertical lines and n horizontal lines corresponding to an n x v pixel array of image data; and

connecting, sequentially, each one of a plurality of n line buffers to the array of photo sensors, each line buffer holding up to v pixels of image data, and transferring the image data in sequential ones of the n horizontal lines of the array to a corresponding one of the n line buffers, and outputting the image data in the n line buffers in parallel,

wherein the plurality of line buffers is arranged in a vertical direction and is less than the number of the photosensors arranged in the vertical direction.